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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/008,938

11/08/2001

John J. Pickerd

7136-US

4805

7590

12/03/2003

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EXAMINER

DESTA, ELIAS

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/008,938

Applicant(s)

PICKERD ET AL.

Examiner

Elias Desta

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 18-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-30 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## Detailed Action

### Drawing

1. The drawing is objected to because of the following minor informalities:

➤ Figs. 3, 4A and 4B: horizontal and vertical lines should be labeled.

Note: the Examiner believes that one of the ordinary skill in the art would not be able to tell what these drawings represent unless the horizontal and vertical axis are labeled because these are not reading from an oscilloscope screen, but an illustration of a sample output, and should be labeled as such.

### Specification

2. The specification is objected to because of the following minor informalities:

- Page 3:

- Lines 16 and 31: change “waveform math” to “waveform equations”
- Line 32, delete “math”

- Page 4:

- Line 18: change “math waveform” to “waveform equation”
- Line 19: change “waveform math” to “waveform equation”
- Lines 20 and 22: change “math” to “mathematical”
- Line 21: delete “math”.

### Allowable Subject Matter

3. The following is an examiner's statement of reasons for allowance:

In reference to claim 18: *Pieper et al.* (U.S. Patent 5,371,851) teaches a test and measurement instrument (see *Pieper et al.*, Abstract). The instrument includes:

- A circuitry for entering parameters to be used to detect violations of predetermined parameters (see *Pieper et al.*, Fig. 2, members 134 and 136);
- A data acquisition unit for acquiring a signal on the first channel (see *Pieper et al.*, Fig. 1, members 110, 116, and 108);
- A processing circuitry for processing the signal from the first channel (see *Pieper et al.*, Fig. 1, member 106);
- A display circuitry for displaying a waveform representation of the signal from the first channel (see *Pieper et al.*, Fig. 26);
- A reference memory for storing the first reference waveform (see *Pieper et al.*, column 4, lines 36-40) because the it is inherent that the graphics display have to have a memory in order to retain the waveforms;
- Comparing circuitry for repeatedly comparing the stored first reference waveform to portions of the first signal for detecting the existence of one of the violations by moving the reference waveform along the signal in time (see *Pieper et al.*, column 19, lines 30-54); and

- Circuitry for alerting a user when one of the violations is detected (see Pieper et al., column 22, line 54 to column 23, line 4).

However, Pieper et al. does not teach a gate comparator to enable a high-speed search for an anomaly or violation in a long record length data acquisition of a test.

Unlike Pieper et al. the claimed invention further includes:

- Defining a plurality of gates with respect to the long record length data;
- Entering a mathematical comparison expression for comparing contents of reference memories;
- Storing the portions of the long record length data in a reference memories;
- Executing the mathematical comparison expression to identify existence of violation;
- Scanning the long record length data acquisition by incrementing the positions of the gates in tandem.

Citation of pertinent prior arts:

- Lu et al. (U.S. Patent 5,371,51) teaches multi-level memory cell device and method for self-converged programming.

The remaining claims are dependent upon claim 18 and contain further limitation

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

5. This application is in condition for allowance except for the following formal matters: see drawing and specification objections as noted above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (703)-305-3840. The examiner can normally be reached on M-Thu (8:00-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703)-308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-5841 for regular communications and (703)-308-5841 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1782.

Elias Desta  
Examiner  
Art Unit 2857

-ed

November 26, 2003

  
MARC S. HOFF  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800